

REMARKS

Applicants request favorable reconsideration and withdrawal of the rejection set forth in the above-noted Office Action in view of the foregoing amendments and the following remarks.

Claims 1, 4, 5, 7-9, 11, and 13-21 remain pending. Claims 11 and 13-20 stand withdrawn from consideration as being directed to a restricted, non-elected invention. Of the claims not withdrawn, claims 1 and 21 are independent. Claims 1 and 21 have been amended. Support for the amendments can be found throughout the originally-filed disclosure, including, for example, at page 18, lines 2-5 of the specification. Accordingly, Applicants submit that the amendments do not include new matter.

Claims 1, 4, 5, 7-9, and 21 are rejected in the Office Action under 35 U.S.C. § 103(a) as being unpatentable over Struyk (U.S. Patent Application Pub. No. 2003/0128218) in view of Abileah et al. (U.S. Patent No. 5,499,126).

Applicants respectfully traverse the rejection. Nevertheless, in order to expedite prosecution, independent claims 1 and 21 have been amended so as to clarify features of the invention that are not disclosed or suggested by the cited references. To this end, Applicants submit that the claimed invention is patentably distinguishable from the cited references for at least the following reasons.

The color display element recited in amended independent claim 1 includes a unit pixel which is comprised of two sub-pixels. The first sub-pixel is configured such that a retardation range of a liquid crystal layer located in the sub-pixel is modulated in accordance with a voltage applied to this sub-pixel so that the chromatic color of light passing through the sub-pixel changes in a range including red and blue, but not including green. On the other hand, the

second sub-pixel includes a green color filter. The method for driving a color display element recited in amended independent claim 21 includes analogous features.

By such an arrangement, the first sub-pixel can produce red and blue light (even without the use of a color filter), as these colors are achieved as a result of retardation by the liquid crystal layer. At the same time the liquid crystal layer of the first sub-pixel does not include a retardation range to produce green light. As discussed in the specification of the present application, green light requires a significantly larger retardation of light passing through a liquid crystal layer than red or blue light. See specification, page 7, lines 11-16; page 18, lines 1-5. At the same time, in the claimed arrangement green light may be produced by the second sub-pixel through the use of the green color filter. As green color has a high visibility, image quality is improved by the color filter's high purity. Specification, page 18, lines 5-8. Thus, in sum, with the claimed configuration a unit pixel can be configured to produce red, blue, and green colors, while still having a small cell thickness due to the red and blue colors, but not green color, being produced by a retardation range of the liquid crystal layer in one sub-pixel. At the same time, the claimed unit pixel can produce green light with high purity.

Applicants submit that the cited references to Struyk and Abileah et al. do not disclose or suggest the configuration recited in amended independent claims 1 and 21. Moreover, as discussed below, Applicants submit that there is no reason to believe that one of ordinary skill in the art in view of the cited references would find it obvious to derive the specifically claimed combination of features.

In Applicant's view, Struyk discloses an apparatus that may include an LCD display comprised of a plurality of pixels. See paragraphs 0042-0043. Each pixel has sub-pixels with color filters, and a composite chromatic light is produced by relative intensity of red, blue, and

green color components from the pixels. Id. Applicant submits that such a system does not suggest providing a specific sub-pixel with a configuration such that a retardation range of a liquid crystal layer located in the sub-pixel changes light passing through the sub-pixel changes in a range including red and blue, but not including green. Further, there would be no apparent reason for one of ordinary skill in the art to modify the structure of Struyk so that a sub-pixel can produce multiple and distinct colors of light (i.e., red and blue), but not specific other colors (i.e., green). Notably, Struyk discloses either a red, blue, or green color filters for each sub-pixel (see paragraph 0042). This is clearly not indicative of manipulating a sub-pixel to produce red and blue colors, but not green color, let alone achieving such a color combination through adjustment of retardation by the liquid crystal layer.

Applicants further submit that the secondary citation to Abileah et al. does not cure the deficiencies of Struyk. Abileah et al. is cited in the Office Action as disclosing various retardation means, including a retardation film for each of a plurality of sub-pixels. The reference is also cited in the Office Action as teaching the application of a voltage to a LCD layer, which the Office Action asserts indicates that the LCD layer acts as a retardation layer in response to voltage.

Applicants submit, however, that like Struyk, Abileah et al. does not disclose or suggest providing a specific sub-pixel with a configuration such that a retardation range of a liquid crystal layer located in the sub-pixel changes light passing through the sub-pixel in a range including red and blue, but not including green. Notably, like Struyk, Abileah et al. discloses red, blue, and green color filters for each pixel. See col. 16, lines 26-42. This is clearly not indicative of manipulating a sub-pixel to produce both red and blue colors, but not green color,

let alone achieving such a color combination through adjustment of retardation by the liquid crystal layer.

Thus, for at least the foregoing reasons, Applicants submit that the references cited in the Office Action do not disclose or suggest the invention recited in amended independent claims 1 and 21.

Applicants further submit that the present application is in condition for allowance. Favorable reconsideration, withdrawal of the rejection set forth in the Office Action, and a Notice of Allowability are requested.

Any fee required in connection with this paper should be charged to Deposit Account No. 06-1205.

Applicants' undersigned attorney may be reached in our Washington, D.C. Office by telephone at (202) 530-1010. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

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